|  | Application No.                                  | Applicant(s)                 |
|--|--|------------------------------|
| Notice of Allowability   | 10/614,928                                       | LEE, JIN-YUAN                |
|  | Examiner   | Art Unit                     |
|  | Douglas M. Menz                                  | 2829                         |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. |  |                              |
| 1. This communication is responsive to <u>1/5/05</u> .   |  |                              |
| 2. The allowed claim(s) is/are 14-24.  |  |                              |
| 3. ☑ The drawings filed on <del>15 August 2003 a</del> re accepted by the Examiner.  |  |                              |
| <ul> <li>4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) ☐ All b) ☐ Some* c) ☐ None of the:</li> <li>1. ☐ Certified copies of the priority documents have been received.</li> </ul>   |  |                              |
| 2. Certified copies of the priority documents have been received in Application No   |  |                              |
| 3. Copies of the certified copies of the priority documents have been received in this national stage application from the   |  |                              |
| International Bureau (PCT Rule 17.2(a)).   |  |                              |
| * Certified copies not received:   |  |                              |
| Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.   |  |                              |
| 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.   |  |                              |
| 6. CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.  |  |                              |
| (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached   |  |                              |
| 1) ☐ hereto or 2) ☐ to Paper No./Mail Date   |  |                              |
| (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of<br>Paper No./Mail Date  |  |                              |
| Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).  |  |                              |
| 7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.  |  |                              |
|  |  |                              |
| Attachment(s)  | _  |                              |
| 1. ☑ Notice of References Cited (PTO-892)  | 5. Notice of Informal F                          | Patent Application (PTO-152) |
| 2. Notice of Draftperson's Patent Drawing Review (PTO-948)   | 6. ☐ Interview Summary<br>Paper No /Mail Da      |                              |
| <ol> <li>Information Disclosure Statements (PTO-1449 or PTO/SB/0<br/>Paper No./Mail Date 10/14/03</li> </ol>   | Paper No./Mail Da<br>08), 7. ☐ Examiner's Amendo | ment/Comment                 |
| 4. ☐ Examiner's Comment Regarding Requirement for Deposit  | 8. 🛛 Examiner's Stateme                          | ent of Reasons for Allowance |
| of Biological Material   | 9. ☑ Other search histor                         | <u>Y</u> .                   |
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## **DETAILED ACTION**

## Election/Restrictions

In response to the election dated 1/5/05, examiner notes that claims 1-13 have already been cancelled upon the filling of the divisional application. Furthermore, the species restriction has been withdrawn.

## Allowable Subject Matter

Claims 14-24 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 14-19, there is no teaching or suggestion in the art of record disclosing a semiconductor circuit assembly comprising all of the limitations of claim 14 in combination with a second layer of dielectric deposited over the surface of the semiconductor die that is then planarized. Therefore, independent claim 14 is deemed allowable along with its dependent claims 15-19.

Regarding claims 20-24, there is no teaching or suggestion in the art of record disclosing a semiconductor package comprising all of the limitations of claim 20 in combination with a layer of dielectric deposited over the surface of the semiconductor device that is then planarized. Therefore, independent claim 20 is deemed allowable along with its dependent claims 21-24.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

## Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US patent 6168969 discloses a vertically stacked semiconductor package incorporating vertical conducting vias. US patent 6365499 discloses a chip carrier with conductive vias through an interposer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas M. Menz whose telephone number is 571-272-1877. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Baumeister can be reached on 571-272-1722. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DM

DAVID ZARNEKE / PRIMARY EXAMINER